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ABSTRACT

A study was undertaken to determine the impact of the new writing component pioneered by New York State on General Educational Development (GED) performance or passing rates. Data were collected in two phases: Phase I dealt with passing rate data prior to the introduction of the writing sample to the writing subtest; Phase II was begun during the summer of 1987, approximately one year after the addition of the writing sample in New York State. In each phase, data were collected on a sample of 2,000 first-time test-takers. After the writing sample was introduced, data were compared for the two samples and it was found that: (1) 28,000 fewer GED tests were administered in 1987; (2) first-time test-takers attained a significantly higher total test passing rate; (3) GED program adults achieved a significantly higher total test passing rate than nonprogram adults; (4) first-time test-takers attained a significantly higher passing rate on the writing subtest; (5) program adults attained a higher average score and a greater passing rate than nonprogram adults on the writing subtest; and (6) the addition of the writing sample has not had a negative effect on the GED passing rate. (KC)

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IMPACT OF THE WRITING SAMPLE ON GED TEST PERFORMANCE

TWO-YEAR COLLEGE DEVELOPMENT CENTER
UNIVERSITY AT ALBANY

IN COOPERATION WITH

BUREAU OF ADULT AND CONTINUING
EDUCATION PROGRAM DEVELOPMENT
NEW YORK STATE EDUCATION DEPARTMENT

U.S. DEPARTMENT OF EDUCATION
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IMPACT OF THE WRITING SAMPLE

ON GED TEST PERFORMANCE

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ABSTRACT

Beginning on July 1, 1986, New York State led the nation in the addition of a writing sample to the GED test. In 1988, GED tests in all states will contain a writing sample as part of the testing procedure. Many educators hypothesize that the addition of the writing sample has the potential to significantly impact the GED passing rate. This study was undertaken to determine the impact, if any, of the new writing component on GED performance or passing rates. Objectives of the study were: to compile baseline data regarding the New York State success rate on the GED as related to the writing sample; to determine the impact of the writing sample on GED performance in New York State; and to examine the GED performance by program adults and nonprogram adults in New York State. Because of the lack of current baseline data in New York State on GED subtest scores, performance data prior and subsequent to the introduction of the writing sample were collected for appropriate pre-post comparisons to be made. Data were collected in two phases: Phase I, which was undertaken during the summer of 1986, dealt with passing rate data prior to the introduction of the writing sample. Phase II was begun during the summer of 1987, approximately one year after the addition of the writing sample to the GED test in New York State. In each phase, data were collected on a sample of 2,000 first-time test-takers.

Major findings include:

- The number of GED tests administered during the July-June period prior to the writing sample was almost 28,000 greater than the similar period subsequent to the writing sample.

- First-time test-takers attained a significantly greater total test passing rate subsequent to the addition of the writing sample. In 1985-86, the total sample passing rate was 43.5%; during 1986-87, 57.5%. The average overall increase was 14%.

- Program adults achieved a significantly higher total test passing rate than nonprogram adults ($p < .03$) subsequent to the addition of the writing sample.

- First-time test-takers attained a significantly higher passing rate on the writing subtest subsequent to the addition of the writing sample (an average 12% gain) with program adults achieving a higher rate of positive change (15% program, 9% nonprogram adults).

- Subsequent to the introduction of the writing sample, program adults attained a higher average score and a greater passing rate (46.5, 85%) than nonprogram adults on the writing subtest (43.9, 78%). The passing rate achieved by program adults approached a significantly higher level ($p < .08$) as compared to nonprogram adults.

- Based upon the performance of all GED test-takers statewide (Multiple Choice standard scores versus Multiple Choice + Essay standard scores), the addition of the writing sample has not had a detrimental impact.

The results of this study demonstrate that the writing sample is not associated with negative effects on GED passing rates. The gains in performances from Phase I to Phase II suggest that any impact of the writing sample, while not known or necessarily direct, is apparently positive.

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IMPACT OF THE WRITING SAMPLE ON GED TEST PERFORMANCE

Introduction

Beginning on July 1, 1986, New York State led the nation in the addition of a writing sample to the GED test. In 1988, GED tests in all states will contain a writing sample as part of the testing procedure. Many educators hypothesize that the addition of the writing sample has the potential to significantly impact the GED passing rate. This study was undertaken to determine the impact, if any, of the new writing component on GED performance or passing rates. The study was not an attempt to gather data for making judgments about local programs. No such information was collected and no such judgments were made about any particular local effort. Because of the lack of current baseline data in New York State on GED subtest scores, performance data prior and subsequent to the introduction of the writing sample were collected in order that appropriate pre-post comparisons could be made.

Data collection was done in two phases: a "pre-study" or Phase I and a "post-study" or Phase II. Phase I, which was undertaken during the summer of 1986, dealt with passing rate data prior to the introduction of the writing sample. Phase II was begun during the summer of 1987, approximately one year after the addition of the writing sample to the GED test in New York State. These two pools of information allowed comparisons of performance prior and subsequent to the addition of the writing sample in order to address the question of its impact on passing rates.

During the fall of 1986, a limited sample of two regions (N=30) was drawn and data summarized for the purpose of gaining an early indication of any potential trends in performance following the introduction of the writing sample. In general, these data indicated that the writing sample

had little effect on GED passing rates.*

The Study

Goals and Objectives

The major goal of this study was to determine the impact of the new writing sample on GED performance. The objectives of the study were:

- to compile baseline data regarding the New York State success rate on the GED as related to the writing sample
- to determine the impact of the writing sample on GED performance in New York State
- to examine the GED performance by program adults and nonprogram adults in New York State

The following research questions were employed to achieve the objectives:

1) What are the success rates of program and nonprogram first-time test-takers, in New York State during 1985-86 and 1986-87,
   a) on the total test?
   b) on the writing subtests?
   c) on the reading subtests?
2) How do performances of program and nonprogram adults compare statewide and by region?
3) What is the relationship between age and performance for program and nonprogram adults?
4) To what extent are failures attributed to subtests other than writing?

Data Source and Methodology

The data source for Phase I was identified as a random sample of scores of first-time test-takers, stratified by testing center, for program test-takers (N=1,000) and nonprogram test-takers (N=1,000) during 1985-86. The total tests given in New York State during 1985-86 (July to June) numbered 80,203. The following year, the total number of tests given in New York

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*For details see *Performance Study: Adults and the GED Test--A Preliminary Measure, December 1986.*

State in the July-June time period decreased to 52,743. The total sample was held constant (N=1,000 program test-takers, N=1,000 nonprogram test-takers) and the sampling process was replicated for Phase II. Thus, the complete study was comprised of a sample (N=4,000) drawn at two time points: prior to the introduction of the writing sample, and subsequent to the introduction of the writing sample.

In identifying the stratified sample, the bases for selection were the 72 test centers grouped by seven regions: New York City, Long Island, Mid-Lower Hudson, Capital District and North Country, Central New York, Genesee and Southern Tier, and Western New York. Although boundaries of the regions changed during the course of the study, the original seven regions were used in both Part I and Part II to maintain consistency. More specifically, the process of sample selection consisted of the following steps:

1) The total number of GED tests given in each of the 72 individual test centers during each year (1985-86, 1986-87, July-June) was determined.

2) The individual test center total was divided into the New York State total. (For example: if 5,000 tests were given in Test Center A and 10,000 tests were given in the entire state in the year, then 5,000/10,000 equals 50%. Fifty percent of the sample would be from tests given at Center A. If, in this example, the total sample was to be made up of 1,000 program cases and 1,000 non-program cases, then 500 program cases and 500 nonprogram cases would be randomly selected from tests given in Center A.)

3) Identification of random cases for the sample consisted of dividing the number of cases needed into the total number of tests taken in a test center. For example, Center A: $\frac{500 \text{ cases needed}}{5000 \text{ tests taken}} = \frac{1}{10}$. Every tenth case from Center A would be selected for the sample.

Based on this process, it was determined in Phase I that 70% of the sample must represent New York City and 30% from the balance of the state. During Phase II, the proportions changed somewhat to reflect the number of

test-takers: 66% of the sample represented New York City and 34% the rest of the state.

Presented below are the number of program and nonprogram first-time test-takers selected in each region.

Phase I	Region	Phase II
N= 90	Central New York Region	N= 116
N= 100	Genesee and Southern Tier Region	N= 116
N= 110	Long Island Region	N= 112
N= 98	Mid-Lower Hudson Region	N= 100
N=1400	New York City	N=1322
N= 82	Northern and Capital District Region	N= 110
N= 110	Western New York	N= 124

(Each number contains an equal number of program & nonprogram test-takers)

Total N=4,000

During Phase I, the sample from New York City represented 18 testing centers. In Phase II, data could be obtained from only two centers. The majority of the sample was drawn from one of the largest testing centers in terms of testing frequency and numbers administered. Also, its location and easy access regularly draws test-takers from three (Bronx, Brooklyn, Manahattan) of five boroughs. Thus, the sample can make a limited claim of representation of test-takers in the New York City Region.

Phase I and Phase II data have been summed to indicate performance levels prior and subsequent to the introduction of the writing sample with analysis of pass/failure rate on the test as a whole, pass/failure rate relative to program or nonprogram status, mean test scores on writing and reading tests, plus demographics of age range, region, and testing center.

Presentation of Data

Age of Test-Takers

Figure 1 presents the age range of adults for both program and nonprogram test-takers. The ages of program and nonprogram adults ranged from 18 years old (born in the late 60's) to over 57 (born before 1930). In Phase I, 44% of nonprogram adults taking the GED fell into the 18-22 age range as compared to 32% of program adults. Sixty-two percent (62%) of nonprogram adults were 27 or younger compared to 55% of program adults. The mean age range was 23-27. The pattern continued in Phase II: mean age range was 23-27 (program) and 18-22 (nonprogram); 57% of nonprogram adults fell into the 18-22 age range compared to 40% of program adults. This suggests that the younger adult taking the GED is more apt to do so without benefit of program instruction. Perhaps they leave the traditional high school and choose the GED alternative at a time when skills and test-taking techniques are not too distant. Other age ranges in both cycles show a 6% or less difference between program and nonprogram adults. Thus with the exceptions noted in the 18-22 year-old age bracket, the age range data of program and nonprogram adults taking the GED test is comparable before and after the introduction of the writing sample.

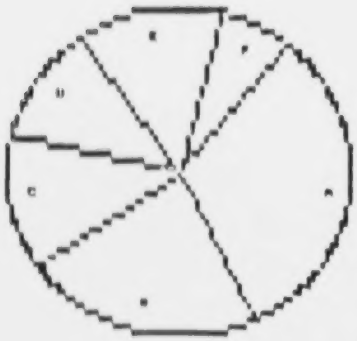
Age and Passing Rates

Some variations were found in passing rates by the age level of test-takers. As shown in Figure 2A, prior to the writing sample younger adults not in formal programs attained a higher passing rate (not statistically significant) than program adults of the same age range (49% and 41%, respectively). Within the total sample, the nonprogram younger adults made up 44% of the total nonprogram sample, program adults 32%. On the other hand, the greatest difference favoring program adults is with the oldest adults, born before 1930, where a significant difference in passing rate of 23 percentage points exists between program (2% of sample) and nonprogram (2% of sample) adults.

Figure 1

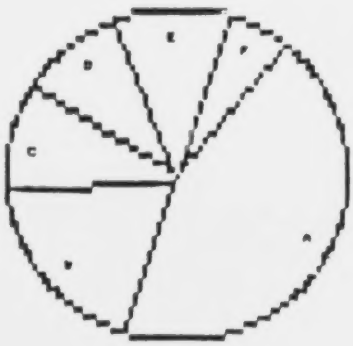
Age Range of Adults Taking the GED Test in New York State

1985-86



PROGRAM ADULTS

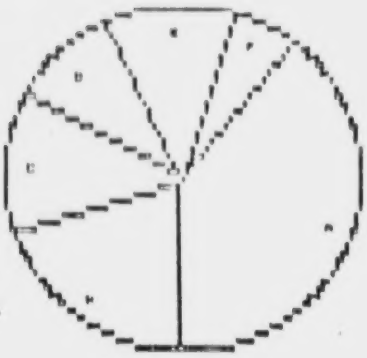
	%
A 1965-69	32
B 1960-64	23
C 1955-59	13
D 1950-54	11
E 1940-49	14
F 1930-39	5
F BEFORE 1930	2



NON PROGRAM ADULTS

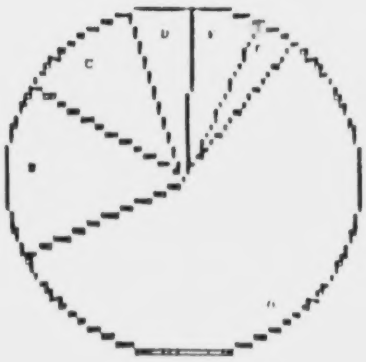
	%
A 1965-69	31
B 1960-64	19
C 1955-59	11
D 1950-54	10
E 1940-49	11
F 1930-39	4
F BEFORE 1930	2

1986-87



PROGRAM ADULTS

	%
A 1965-69	40
B 1960-64	19
C 1955-59	13
D 1950-54	10
E 1940-49	12
F 1930-39	4
F BEFORE 1930	2



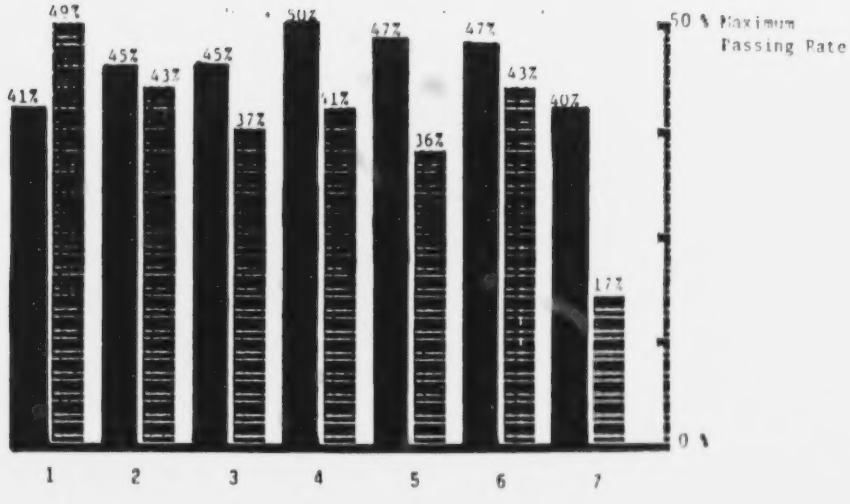
NON PROGRAM ADULTS

	%
A 1965-69	57
B 1960-64	16
C 1955-59	11
D 1950-54	6
E 1940-49	6
F 1930-39	3
F BEFORE 1930	1

Figure 2A

Age and Success Rate, GED

1985-86



Code: = Program

= Nonprogram

% = Passing Rate

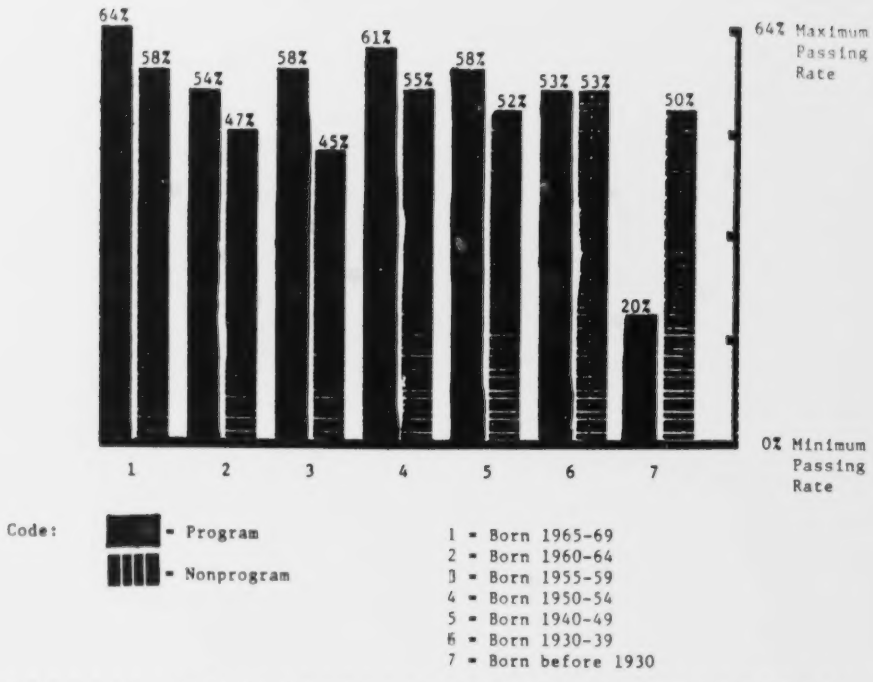
1 = Born 1965-69
2 = Born 1960-64
3 = Born 1955-59
4 = Born 1950-54
5 = Born 1940-49
6 = Born 1930-39
7 = Born before 1939

As shown in Figure 2B in Phase II subsequent to the writing sample, program adults showed an equal or higher passing rate than nonprogram first time test-takers in all age groupings except one. In that group (#7), non-program adults born before 1930 achieved a significantly higher passing rate (50%) than program adults (20%) of the same age--a contrast to the previous year. However this older age group made up only 1% of the non-program sample, and 2% of the program sample.

Figure 2B

Age and Success Rate, GED

1986-87



When comparing performance in Phases I and II by age, program adult passing rates increased in each age grouping with the one exception noted previously--the oldest adults. When similarly comparing performance of nonprogram adults, they also tended to perform more successfully subsequent to the introduction of the writing sample in all age categories.

Passing Rate Comparisons: Total Test and Writing Subtest

Three areas of information were compiled for the program and nonprogram sample in both cycles--reading scores, writing scores and pass/fail status. During 1986-87, math scores were added to the data collection process.

In 1985-86, the passing rate for the total sample was 43.5%; in 1986-87, it increased to 57.5%, a significant difference. Figure 3 compares the passing rates, by program and nonprogram, of pre and post-cycles for total test and writing passing rates.

Figure 3

Comparison of Total Test and Writing Subtest Passing Rates

		Total Test Passing Rate			Writing Passing Rate		
		1985-86	1986-87	Difference	1985-86	1986-87	Difference
Statewide	Program	44% (440)	61% (610)	+17% (170)***	70% (700)	85% (850)	+15% (150)***
	Nonprogram	43% (430)	54% (540)	+11% (110)***	69% (690)	78% (780)	+ 9% (90)*

*** $p < .001$
* $p < .05$
( ) = frequency within sample

The total test passing rate for program adults increased by 17% and writing exhibited a 15% gain subsequent to the addition of the writing sample. The total test passing rate for nonprogram adults showed a gain of 11% and writing by 9%. To determine whether observed passing rates after introduction of the writing sample deviated significantly from expected levels, the chi-square statistic was employed, using numerical frequencies. Both program and nonprogram adults demonstrated total test and writing passing rates that were significantly greater than expected subsequent to the introduction of the writing sample.

Figure 4

Comparison of Passing Frequencies: Total Test and Writing Subtest

	# Passed 1985-86	Chi-Square Value	# Passed 1986-87	Chi-Square Value
Total Test:				
Program (N=1000)	447	.68	(N=1000) 614	.03*
Nonprogram (N=1000)	435		(N=1000) 541	
Writing Test:				
Program	700	.78	950	.08[1]
Nonprogram	690		780	

Total N = 4,000
* = $p < .05$
1 = Although statistical significance at $p < .05$ level was not attained, the difference is large enough to be specifically noted.

As shown in Figure 4, there was no significant difference in Phase I between the passing rates on the total test or writing subtest attained by first-time test-takers whether in or out of programs. However, in Phase II, program adults attained significantly higher passing rates on the total test and approached a significantly higher level (.08) on the writing subtest.

Passing Rate Comparisons: Subtest Passing Rates and Average Scores

Figure 5 summarizes average scores, average passing rates and passing percentages for the writing, reading and math (1986-87 only) subtests.

- -

Figure 5

Statewide GED Performance Summary

	Average Score			Passing Rate			Total Test Failures				
	Writing	Reading	Math	Writing	Reading	Math	% Passed Wr & Rdg	% Passed Writing	% Passed Reading	% Pass Math	% Passed Wr, Rdg & Math
1985-86											
Program (N=1000)	45.78	48.90	-	70%	88%	-	40%	47%	70%	-	-
Nonprogram (N=1000)	45.38	48.87	-	69%	88%	-	41%	46%	68%	-	-
1986-87											
Program (N=1000)	46.49	47.37	44.64	85%	84%	81%	44%	63%	63%	52%	24%
Nonprogram (N=1000)	43.95	46.56	44.26	78%	81%	81%	38%	52%	54%	50%	23%

(Total N=4000)

- Math data collected in post-cycle only.

*p> .05

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On a statewide basis the average score attained by program adults on the writing test prior to the sample was 45.78; nonprogram adults had an average score of 45.38. Subsequent to the introduction of the writing sample, program adults attained an average score of 46.49 in writing compared to 43.95 attained by nonprogram adults. The average reading score statewide for program adults in 1985-86 was 48.90 and 48.87 for nonprogram adults; in 1986-87 scores were 47.37 and 46.56, respectively. On math subtests in 1987 program adults attained an average score of 44.64 compared to 44.26 by nonprogram adults.

Data in Figure 5 also display performance on writing, reading and math (Phase II only) subtests of test failures. Percentages are given for first-time test-takers who passed reading, writing, and math; reading and writing; writing or reading or math separately, but in all cases failed the GED.

In Phase I, 40% of program adults and 41% of nonprogram adults who failed the test passed both reading and writing. Of those failing the GED 47% of program adults and 46% of nonprogram adults passed the writing subtest compared to 70% of program adults and 68% of nonprogram adults who passed the reading subtest.

Phase II figures show that of those program adults who failed the GED, 44% passed both writing and reading, 63% writing, 63% reading, 52% math and 24% writing, reading, and math. Of nonprogram adults who failed the test 38% passed writing and reading, 52% writing, 54% reading, 50% math and 23% writing, reading, and math. During Phase II, the percentage of program test-takers who passed the writing subtest but failed the GED was significantly greater than expected.

Comparison of Performance: Multiple Choice + Essay (MC + E) to Multiple Choice (MC) Only

New York State is in a unique position during this period of transition to the writing subtest that includes an essay. Because this writing sample has been mandated in New York State since July 1986, score conversion tables are available at this one time only, which allow an examination of performance level both with and without the essay. Therefore, we have been able to take advantage of this unique opportunity to compare the performance of test-takers during a time period comparable to the post-phase or Phase II of this study. This comparison was made

possible through the cooperation of the Division of Educational Testing, New York State Education Department.

To examine the relationahip of the essay to performance on the GED writing subtest, standard scores for multiple choice plus the essay (MC + E) were compared to standard scores for multiple choice only (MC).

Test results were converted to standard scores by two alternate approaches: 1) scoring of performance as has traditionally been done, multiple choice only and 2) scoring of performance as it now is done for the new writing subtest, multiple choice + essay. The individuals are the same, the comparison is of their performance. (It should be noted that these data include both program and nonprogram test-takers thus there is no distinction of performance by program or nonprogram status. Further, scores of both first-time and repeat test-takers are included.)

Figure 6 summarizes the frequency of the following four possible performance outcomes on the writing subtest (English version only; see Appendix D for outcomes on Spanish and French versions):

1. Multiple Choice (MC) $\geq$ 40 (PASS) and Multiple Choice + Essay (MC + E) $\geq$ 40 (PASS)
2. Multiple Choice $<$ 40 (FAIL) and Multiple Choice + Essay $<$ 40 (FAIL)
3. Multiple Choice $<$ 40 (FAIL) and Multiple Choice + Essay $\geq$ 40 (PASS)
4. Multiple Choice $\geq$ 40 (PASS) and Multiple Choice + Essay $<$ 40 (FAIL)

Figure 6

Frequency Summary of Statewide Performance:
Multiple Choice (MC) versus Multiple Choice + Essay (MC + E)

	PASS MC PASS MC + E	PASS MC FAIL MC + E	FAIL MC PASS MC + E	FAIL MC FAIL MC + E
English Version	57,939 82.9%	920 1.3%	4,111 5.9%	6,927 9.9%

A strong majority of test-takers attained passing performance on both Multiple Choice only and Multiple Choice + Essay (82.9%). Almost 10% failed to achieve passing on either MC or MC + E. In almost 6% of the cases, test-taker performance was failing on Multiple Choice only but was passing on Multiple Choice + Essay. Slightly over 1% of the test-takers performed successfully on Multiple Choice but failed Multiple Choice + Essay. These data further support the notion that the addition of the writing sample has not had a detrimental impact on passing rates but for some test-takers it has tended to enhance performance on the writing subtest.

Figure 7

Comparison of Statewide Performance Scores on Writing Subtest:
Multiple Choice (MC) versus Multiple Choice + Essay (MC + E)

	Mean Score	Standard Deviation	Standard Error Measurement	Pearson Coefficient Correlation
English - Outside New York City				
MC	48.31	8.14	4.3	.943
MC + E	50.41	7.88	4.3	
English - New York City				
MC	45.99	8.06	4.4	.939
MC + E	47.86	7.99	4.3	

(See Appendix D for French and Spanish versions.)

As shown in Figure 7, mean performance scores are higher for MC + E than for MC only, adding to evidence that the essay has a positive impact on the performance of GED test-takers. The correlations between scores attained on Multiple Choice and Multiple Choice + Essay are significantly high indicating that performance on either has predictability for performance on the other.

Profiles of Regional Data

For those readers interested in the profile of a specific region, Appendix A provides a comparison of passing rates prior and subsequent to the writing sample for each region. Appendix B summarizes test centers, age range of the sample for each region, and mean scores, passing rates and performance comparison for the sample within each region for each phase. Also on a regional basis, Appendix C compares performance on the writing subtest by MC only versus MC + E.

Summary of Findings and Discussion

The major findings are subsequently summed:

- The number of GED tests administered during the July-June period prior to the writing sample was almost 28,000 greater than the similar period subsequent to the writing sample.
- Overall, more nonprogram adult first-time GED test-takers tend to be in younger age categories than program adults.
- First-time test-takers attained a significantly greater total test passing rate subsequent to the addition of the writing sample. In 1985-86, the total sample passing was 43.5%; during 1986-87, 57.5%. The average overall increase was 14%.
- Program adults achieved a significantly higher total test passing rate than nonprogram adults ($p < .03$) subsequent to the addition of the writing sample.

- First-time test-takers attained a significantly higher passing rate on the writing subtest subsequent to the addition of the writing sample (an average 12% gain) with program adults achieving a higher rate of positive change (15% program, 9% nonprogram adults).

- Subsequent to the introduction of the writing sample, program adults attained a higher average score (46.5) than nonprogram adults (43.9) on the writing subtest. Also on the writing subtest, the difference in passing rates between program and nonprogram test-takers approached statistical significance ($p < .08$).

- Of those failing the GED test, a greater percentage passed the writing subtest subsequent to the addition of the writing sample. Forty-seven percent (47%) of failing first-time test-takers (program and nonprogram adults) passed the writing subtest during 1985-86 compared to 59% in 1986-87. For further comparisons, reading was passed by 69% in 1985-86, 58.5% in 1986-87. Forty percent (40%) passed both writing and reading in 1985-86, 41% in 1986-87; 23.5% passed writing, reading and math in 1986-87.

- When comparing the performance (standard scores for Multiple Choice only versus standard scores for Multiple Choice + Essay) of all GED test-takers statewide, the writing sample has not had a detrimental impact but tends to enhance results. Also correlations between scores (MC only and MC + E) are significantly high to suggest that performance on either has predictability on the other.

Discussion

In noting the general increase in passing rates shown by both program and nonprogram adults between the pre and post phases, the difference in numbers of GED test-takers should be recognized. During 1985-86, over 80,000 tests were given during the July-June period addressed by the project. In the similar period a year later, the number dropped to about 52,000. This may suggest that a surge of first-time test-takers attempted the GED to avoid the new writing sample whether or not test readiness had been reached. Or, perhaps more teachers in 1986-87 held back students until they felt they were able to pass the new writing sample. Another modifying

factor may have been the statewide inservice training in teaching writing and the instructional priority and emphasis placed upon writing by adult educators in response to the coming writing sample.

In addition to increased passing rates in writing, the rates for reading showed a decline by both program (-4%) and nonprogram (-7%) adults--an average loss of 5.5%. However, average scores did not decline significantly. Perhaps a trade-off in emphasis occurred to some degree but the study has no data to point to what may be responsible for this decline, even though passing rates on the total test increased in the subsequent period.

The differences in results among age levels need to be viewed in relation to the proportion of the sample represented by a particular age group. For example, in 1985-86, the nonprogram young adults made up 44% of that sample. The findings that this group achieved greater success is important because of its proportion and that it might be expected that younger adults would be closer to having used the skills needed for test-taking in a school situation. If it can be assumed by the total numbers of test-takers that there was a rush to take the test prior to July 1, 1986, an observer might reasonably expect younger test-takers to have the potential to perform better.

Subsequent to the introduction of the writing sample, program and nonprogram adults generally achieved higher passing rates than their counterparts prior to the sample. This suggests that the addition of the writing sample has somehow enhanced the potential to pass the GED. However, the number of persons taking the test has decreased significantly. Perhaps the advent of the writing sample has had two effects: focusing instructional and assessment readiness efforts, and discouraging casual test-taking.

The sometimes small differences between program and nonprogram passing rates could lead an unwary reader to an erroneous conclusion: that instructional programs make no difference in passing rates. Such a conclusion is based on an assumption of equal adult academic skill levels before instruction. No data is available to support that notion nor would common sense lead to such an assumption.

Summary. The results of this study, which examined success rates prior and subsequent to the introduction of the writing sample by both program and nonprogram first-time test-takers, indicate that the addition of the writing sample cannot be associated with negative effects on GED passing rates. The gains in performances from Phase I to Phase II suggest that any implied impact of the writing sample, while not known or necessarily direct, was apparently positive. A number of factors, the identification of which is beyond the scope of this study, may have combined in some way to enhance the potential of achieving a passing score on the GED.

APPENDIX A

Comparison of Passing Rates Prior and Subsequent to Writing Sample: Program

Region	Total Test Passing Rate			Writing Passing Rate			Reading Passing Rate		
	1985-86	1986-87	% Change	1985-86	1986-87	% Change	1985-86	1986-87	% Change
Central New York	71%	66%	- 5%	93%	92%	- 1%	98%	82%	-16%
Genesee & Southern Tier	62%	71%	+ 9%	78%	93%	+15%	92%	91%	- 1%
Long Island	84%	75%	- 9%	93%	93%	0	96%	91%	- 5%
Mid-Lower Hudson	67%	60%	- 7%	86%	92%	+ 6%	94%	82%	-12%
New York City	35%	58%	+23%***	64%	83%	+19%**	77%	83%	+ 6%
Northern & Capital District	65%	75%	+10%	87%	89%	+ 2%	96%	85%	-11%
Western New York	55%	63%	+ 8%	71%	92%	+21%[1]	85%	90%	+ 5%
Statewide	44%	61%	+17%***	70%	85%	+15%***	88%	84%	- 4%

Comparison of Passing Rates Prior and Subsequent to Writing Sample: Nonprogram

Region	Total Test Passing Rate			Writing Passing Rate			Reading Passing Rate		
	1985-86	1986-87	% Change	1985-86	1986-87	% Change	1985-86	1986-87	% Change
Central New York	60%	71%	+11%[1]	80%	91%	+11%[1]	87%	86%	- 1%
Genesee & Southern Tier	62%	64%	+ 2%	84%	83%	- 1%	92%	78%	-14%
Long Island	69%	70%	+ 1%	84%	82%	- 2%	93%	82%	-11%
Mid-Lower Hudson	54%	58%	+ 4%	80%	90%	+10%	94%	84%	-10%
New York City	37%	48%	+11%*	64%	74%	+10%	86%	79%	- 7%
Northern & Capital District	57%	65%	+ 8%	89%	85%	- 4%	100%	91%	- 9%
Western New York	51%	68%	+17%[1]	80%	81%	+ 1%	89%	81%	- 8%
Statewide	43%	54%	+11%***	69%	78%	+ 9%*	88%	81%	- 7%[1]

NOTE: Chi-square calculations based on frequencies.

*** = $p < .001$
** = $p < .01$
* = $p < .05$
[1] = $p < .06$ to .09

NOTE: Data for Math passing rates were collected for 1986-87 only.

APPENDIX B1

GED Performance Summary: Statewide and Regional
(1985-86)

	Average Scores		Passing Rate		Total Test Passing Rate	Total Test Failures - % Passed Wr & Rdg	% Passed Writing	% Passed Reading
	Writing	Reading	Writing	Reading				
Statewide								
Program (N=1000)	45.78	48.90	70%	88%	44%	40%	47%	70%
Nonprogram (N=1000)	45.38	48.87	69%	88%	43%	41%	46%	68%
New York City Region								
Program (N=700)	41.17	43.52	64%	77%	35%	38%	46%	68%
Nonprogram (N=700)	42.64	45.37	64%	86%	37%	37%	42%	63%
Long Island Region								
Program (N=55)	48.51	46.67	93%	96%	84%	44%	55%	78%
Nonprogram (N=55)	51.65	50.91	84%	93%	69%	41%	47%	76%
Mid-Lower Hudson Region								
Program (N=49)	48.61	50.67	86%	94%	67%	44%	56%	81%
Nonprogram (N=49)	45.93	50.91	80%	94%	54%	48%	57%	86%
Central New York Region								
Program (N=45)	47.29	51.27	93%	98%	71%	69%	77%	92%
Nonprogram (N=45)	45.42	48.29	80%	87%	60%	39%	50%	61%
Genesee & Southern Tier Region								
Program (N=50)	45.08	47.88	78%	92%	62%	37%	42%	74%
Nonprogram (N=50)	46.72	49.80	84%	92%	62%	47%	53%	79%
Northern & Capital Dist. Reg.								
Program (N=46)	45.56	49.20	87%	96%	65%	50%	63%	88%
Nonprogram (N=46)	47.72	49.54	89%	100%	57%	75%	75%	100%
Western New York Region								
Program (N=55)	44.27	48.09	71%	85%	55%	36%	36%	68%
Nonprogram (N=55)	44.56	47.24	80%	89%	51%	52%	59%	78%

Total N=2000

APPENDIX B2

GED Performance Summary: Statewide and Regional
(1986-87)

	Average Scores			Average Passing Rate			Total Test Passing Rate	TOTAL TEST FAILURES % Passed Wr & Rdg	% Passed Writing	% Passed Reading	% Passed Math	% Passed Wr, R, & M
	Writing	Reading	Math	Writing	Reading	Math						
Statewide												
Program (N=1000)	46.49	47.37	44.64	85%	84%	81%	61% *	44%	63%	63%	52%	24%
Nonprogram (N=1000)	43.95	46.56	44.26	78%	81%	81%	54% *	38%	52%	54%	50%	23%
New York City Region												
Program (N=661)	45.64	46.75	43.84	83%]	83%	78%	58% *	41%	58%	61%	49%	20%
Nonprogram (N=661)	41.86	44.83	43.36	74%]	79%	79%	48% *	39%	51%	56%	49%	23%
Long Island Region												
Program (N=56)	48.55	49.79	46.95	93%	91%	88%	75%	43%	64%	57%	43%	21%
Nonprogram (N=56)	46.80	48.61	45.98	82%	82%	86%	70%	24%	41%	41%	53%	12%
Mid-Lower Hudson Region												
Program (N=50)	48.80	47.74	44.28	92%	82%	80%	60%	50%	80%	55%	50%	25%
Nonprogram (N=50)	47.76	48.96	44.32	90%	84%	84%	58%	52%	76%	62%	52%	33%
Central New York Region												
Program (N=58)	47.43	48.45	44.95	86%	86%	86%	66%	40%	60%	60%	60%	25%
Nonprogram (N=58)	49.51	49.32	46.98	91%	86%	83%	71%	41%	71%	53%	47%	24%
Genesee & Southern Tier Region												
Program (N=58)	50.33	49.69	47.12	93%	91%	88%	71%	71%	82%	71%	65%	47%
Nonprogram (N=58)	46.24	46.86	44.74	83%	78%	84%	64%	33%	52%	38%	57%	19%
Northern & Capital Dist. Region												
Program (N=55)	47.09	47.20	44.96	89%	85%	87%	75%	14%	57%	43%	50%	14%
Nonprogram (N=55)	47.09	49.53	46.44	85%	91%	91%	65%	42%	53%	74%	74%	32%
Western New York Region												
Program (N=62)	47.63	48.29	46.63	92%	90%	87%	63%	65%	78%	78%	65%	48%
Nonprogram (N=62)	45.71	50.50	47.34	81%	81%	82%	68%	20%	40%	40%	45%	10%

Total N=2000
*p = <.05
†p = <.06
NOTE: Chi-square calculations based on frequencies.

Appendix C

Frequency Comparison of Performance on Writing Subtest:
Multiple Choice (MC) versus Multiple Choice + Essay (MC + E)

Region	PASS MC PASS MC + E	PASS MC FAIL MC + E	FAIL MC PASS MC + E	FAIL MC FAIL MC + E
Long Island	4,065	50	174	310
New York City	32,538	653	2,732	4,980
Hudson Valley	4,052	46	187	302
Capital District	2,485	24	112	142
North Country	1,213	11	69	114
Mohawk Valley	1,534	6	94	101
Central	2,357	23	148	197
Southern	1,968	31	108	143
Finger Lakes	3,313	41	152	230
Western	4,414	35	335	408

NOTE: Data by ten regions rather than the seven divisions used in study.

Appendix D1

Frequency Summary of Statewide Performance:
Multiple Choice (MC) versus Multiple Choice + Essay (MC + E) --
French and Spanish Versions

	PASS MC PASS MC + E	PASS MC FAIL MC + E	FAIL MC PASS MC + E	FAIL MC FAIL MC + E
Spanish	5,979 84.6%	78 1.1%	416 5.9%	593 8.4%
French	499 60.7%	13 1.6%	129 15.7%	181 22.0%

Appendix D2

Comparison of Performance Scores on Writing Subtest:
Multiple Choice (MC) versus Multiple Choice + Essay (MC + E)

	Mean Score	Standard Deviation	Standard Error Measurement	Pearson Coefficient Correlation
Spanish - Statewide				
MC	47.08	8.10	4.3	.901
MC + E	50.43	8.07	4.2	
French - Statewide				
MC	42.13	8.96	4.3	.875
MC + E	46.71	9.65	4.7	